**NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Section 9.3**

1. We want to find out what percent of students copy homework on a regular basis. On a regular basis is defined as more than 2 times per week. We take an SRS of 300 students and find that 115 of them answered yes!
2. Check the 3 conditions.
3. Estimate the true proportion that cheat regularly with 95% confidence. Interpret your interval. (Z\* = 1.96)
4. We take a survey of 150 local 16-21 year old drivers and find that 90 of them have gotten at least one speeding ticket.
5. Check the 3 conditions.
6. Find a 99% confidence interval for the true proportion of young drivers that have gotten at least one speeding ticket. Interpret your interval. (Z\* = 2.576)
7. Regardless of age, about 20% of American adults participate in fitness activities at least twice a week. However, as many people age, their fitness activities decrease. In a SRS of 100 adults over 40 years of age, 15 people indicated that they participated in a fitness activity at least twice a week. Do these data indicate that the participation rate for adults over 40 years of age is significantly **less** than the 20% figure?
8. Check the 3 conditions.
9. Perform a hypothesis test, and use a 0.05 significance level.
10. A researcher is testing a new medication out on rats. The old medication claimed that only 6% of people saw serious side effects. 21 out of 200 rats that were given the medication suffered serious side effects.
11. Check the 3 conditions
12. Is there sufficient evidence at the 0.08 level of significance that the true proportion is not equal to 6%?